What is claimed is:

1. In a feed forward amplifier that receives an input signal and amplifies the input signal to produce an amplified signal, wherein the feed forward amplifier determines an error signal based on the input signal and the amplified signal, wherein the feed forward amplifier amplifies the error signal to produce an amplified error signal, and wherein the feed forward amplifier combines the amplified signal and the amplified error signal to produce an output signal that comprises a carrier component and a distortion component, an apparatus for correcting distortion in the feed forward amplifier comprising:

a control circuit that receives a portion of the feed forward amplifier output signal, determines a distortion component of the portion of the feed forward amplifier output signal, and produces a control signal based on an energy of the distortion component of the portion of the feed forward amplifier output signal; and

wherein the control signal is capable of controlling the peak power of the error signal, and, by controlling the peak power of the error signal, reducing an energy of the distortion component of the feed forward amplifier output signal.

2. The apparatus of claim 1, wherein the control circuit further detects an energy of a distortion components and produces the control signal based on the detected energy.

3. The apparatus of claim 1, wherein the control circuit comprises:

a mixer that receives a portion of the feed forward amplifier output signal and downconverts the feed forward amplifier output signal to baseband to produce a baseband output signal;

a filter that receives the baseband output signal and filters the baseband output signal to produce a distortion signal comprising the distortion components;

a detector that detects an energy of distortion signal;

a controller coupled to the detector that produces the control signal based on the detected energy.

4. The apparatus of claim 3, wherein the control circuit further comprises a local oscillator coupled to the mixer that produces a reference signal and conveys the reference

signal to the mixer, and wherein the mixer multiplies the feed forward amplifier output signal with the reference signal to produce a baseband output signal.

5. The apparatus of claim 4, wherein the local oscillator is further coupled to the controller, wherein the controller produces a local oscillator control signal that the controller conveys to the local oscillator, and wherein the local oscillator produces the reference signal based on the local oscillator control signal.

6. The apparatus of claim 1, wherein the control signal is capable of controlling an adjustment of an amplitude of the input signal and a phase of the input signal.

7. The apparatus of claim 1, wherein the control signal is capable of controlling an amplitude of the error signal and a phase of the error signal.

8. A communication device having a transmitter that comprises:

a main signal path that receives an input signal, samples the input signal to produce an attenuated input signal, conveys the attenuated input signal to a feed forward correction circuit, amplifies the input signal to produce an amplified signal, samples the amplified signal to produce an attenuated amplified signal, conveys the attenuated amplified signal to the feed forward correction circuit, receives an amplified error signal, combines the amplified signal with the amplified error signal to produce a transmitter output signal that comprises a carrier component and a distortion component, samples the transmitter output signal to produce an attenuated output signal, and conveys the attenuated output signal to a control circuit;

a feed forward correction circuit coupled to main signal path that receives the attenuated input signal and the attenuated amplified signal, produces an error signal based on the attenuated input signal and the attenuated amplified signal, amplifies the error signal to produce the amplified error signal, conveys the amplified error signal to the main signal path;

a control circuit coupled to main signal path that receives the attenuated output signal, determines a distortion component of the attenuated output signal, and produces a control signal based on an energy of the distortion component of the attenuated output signal; and

wherein the control signal reduces the distortion component of the attenuated output signal and wherein reduction of the distortion component of the attenuated output signal corresponds to a reduction of the distortion component of the transmitter output signal.

9. The apparatus of claim 8, wherein the control circuit further detects an energy of the distortion component and produces the control signal based on the detected energy.

10. The apparatus of claim 8, wherein the control circuit comprises:

a mixer that receives a portion of the feed forward amplifier output signal and downconverts the feed forward amplifier output signal to baseband to produce a baseband output signal;

a filter that receives the baseband output signal and filters the baseband output signal to produce a distortion signal comprising the distortion components;

a detector that detects an energy of distortion signal;

a controller coupled to the detector that produces the control signal based on the detected energy.

11. The apparatus of claim 10, wherein the control circuit further comprises a local oscillator coupled to the mixer that produces a reference signal and conveys the reference signal to the mixer, and wherein the mixer multiplies the feed forward amplifier output signal with the reference signal to produce a baseband output signal.

12. The apparatus of claim 11, wherein the local oscillator is further coupled to the controller, wherein the controller produces a local oscillator control signal that the controller conveys to the local oscillator, and wherein the local oscillator produces the reference signal based on the local oscillator control signal.

13. The communication device of claim 8, wherein the control circuit conveys the control signal to the main signal path and wherein the main signal path adjusts an amplitude of the input signal based on the control signal.

14. The method of claim 13, wherein the feed forward correction circuit adjusts an energy of a peak power of the error signal based on the adjustment of an amplitude of the input signal.

15. The communication device of claim 8, wherein the control circuit conveys the control signal to the feed forward correction circuit and wherein the feed forward correction circuit adjusts an amplitude of the error signal and a phase of the error signal based on the control signal.

16. A method for reducing distortion in a transmitter that amplifies an input signal to produce an amplified signal, the method comprising steps of:

sampling the input signal to produce an attenuated input signal;

sampling the amplified signal to produce an attenuated amplified signal;

combining the attenuated input signal with the attenuated amplified signal to produce an error signal;

amplifying the error signal to produce an amplified error signal;

combining the amplified error signal with the amplified signal to produce a transmitter output signal that comprises a carrier component and a distortion component;

sampling the transmitter output signal to produce an attenuated output signal;

determining a distortion component of the attenuated output signal;

determining an energy of the distortion component of the attenuated output signal; and

producing a control signal based on determined energy, wherein the control signal is capable of reducing the distortion component of the attenuated output signal, and wherein reduction of the distortion component of the attenuated output signal corresponds to a reduction of the distortion component of the transmitter output signal.

17. The method of claim 16, further comprising a step of adjusting an amplitude of the input signal and a phase of the input signal based on the control signal.

18. The method of claim 17, further comprising a step of adjusting an energy of a peak power of the error signal based on the adjustment of an amplitude of the input signal.

19. The method of claim 16, further comprising a step of adjusting an amplitude of the error signal and a phase of the error signal based on the control signal.